



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: Trent 877
 UNIQUE ID NUMBER: 2RR025
 COMBUSTOR:
 ENGINE TYPE: TF

BYPASS RATIO: 6.0
 PRESSURE RATIO (π_{00}): 36.3
 RATED THRUST (F_{00}) (kN): 361.6

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	2.9	28.6	60.1	6.9
AS % OF ORIGINAL LIMIT	14.9	24.2	53.3	41.3
AS % OF CAEP/2 LIMIT (NO _x)			66.7	
AS % OF CAEP/4 LIMIT (NO _x)			75.5	
AS % OF CAEP/6 LIMIT (NO _x)			83.9	
AS % OF CAEP/8 LIMIT (NO _x)			95.8	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 x OUT OF PRODUCTION (DATE: 2009)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	3.210	0.00	0.20	34.76	4.1
CLIMB OUT	85	2.2	2.660	0.00	0.16	27.59	5.3
APPROACH	30	4.0	0.900	0.00	0.80	10.59	2.3
IDLE	7	26.0	0.280	1.55	18.42	4.75	0.5
LTO TOTAL FUEL (kg) or EMISSIONS (g)			1139	677	8302	18736	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				1.9	23.3	51.8	5.3
SIGMA (D _p /F ₀₀ in g/kN, or SN)							
RANGE (D _p /F ₀₀ in g/kN, or SN)				1.6-2.18	21.62-24.46	50.5-52.8	4.7-6

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.2
TEMPERATURE (K)	287
ABS HUMIDITY (kg/kg)	0.00527-0.00886

FUEL

SPEC	AVTUR
H/C	1.95
AROM (%)	16

MANUFACTURER: Rolls-Royce plc
 TEST ORGANIZATION: Rolls-Royce plc
 TEST LOCATION: SINFIN-Derby
 TEST DATES: 01/09/1994

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
x	2.3.2 d) (CAEP/6)
	2.3.2 e) (CAEP/8)

REMARKS

1. Data from certification report DNS 14445

Compliance with Fuel Venting requirements:

- ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)